

WHAT IS CLAIMED IS:

1. A method of forwarding a call from a mobile phone, the method comprising:
determining that the mobile phone is within range of a wireless local area network
base station with voice over internet protocol capability;
receiving an internet protocol address associated with the wireless local area
network base station;
sending a call forwarding message including the internet protocol address from
the mobile phone to a remote cellular network element of a wide area
cellular network.
2. The method of claim 1, wherein the cellular network redirects a call destined
to the mobile phone to the wireless local area network base station for communication
with the mobile phone using the voice over internet protocol.
3. The method of claim 1, wherein the mobile phone determines that it is in range
of the wireless local area network by receiving a message in accordance with the 802.11
communication protocol.
4. The method of claim 1, wherein the internet protocol address is communicated
to the mobile phone using the dynamic host configuration protocol.
5. The method of claim 1, further comprising determining that the mobile phone
has moved out of range of the wireless local area network base station and sending a
message to the cellular network element to cancel call forwarding to the wireless local
area network base station.
6. The method of claim 5, wherein the wide area cellular network sends a call
directly to the mobile phone over the cellular spectrum after the mobile phone has moved
out of range of the wireless local area network base station.

7. The method of claim 2, wherein the mobile phone and the wireless local area network base station communicate bidirectionally using the voice over internet protocol.

8. A method of communicating from a wireless local area base station to a mobile phone, the method comprising:

determining that the mobile phone is within range of the wireless local area network base station, the wireless local area network base station having voice over internet protocol communications capability;
retrieving an internet protocol address and an optional port number associated with the wireless local area network base station from a memory; and
sending the internet protocol address and optional port number over a wireless fidelity communication link to the mobile phone.

9. The method of claim 8, further comprising receiving a call from a wide area network, the call directed to the mobile phone at the internet protocol address and the optional port number of the VoIP provider.

10. The method of claim 9, wherein the wide area network is a distributed computer network.

11. The method of claim 9, wherein the wide area network includes a high speed wired communication channel.

12. The method of claim 11, wherein the high speed wired communication channel is a digital subscriber line connection.

13. The method of claim 8, further comprising establishing a bidirectional communication path between the wireless local area network base station and the mobile phone and communicating using voice over internet protocol over the bidirectional communication path.

14. A mobile phone device comprising:
a housing;
an antenna attached to the housing;
a wide area cellular communications module disposed within the housing, the
wide area cellular communications module having a cellular interface to
communicate with a remote wide area cellular network; and
a short-range wireless local area network module disposed within the housing, the
short-range wireless local area network module having a wireless interface
to communicate with a wireless local area network having voice over
internet protocol communications capability.

15. The mobile phone device of claim 14, wherein the wide area cellular
communications module and the short-range wireless local area network module are
computer software modules integrated within a digital processor device.

16. The mobile phone device of claim 15, further comprising a memory coupled
to the digital processor device, the memory storing an internet protocol address received
by the mobile phone from the wireless local area network.

17. The mobile phone device of claim 16, wherein the wide area cellular
communication module formulates a call forwarding message that includes the internet
protocol address, the call forwarding message to be communicated to the remote wide
area cellular network.

18. The mobile phone device of claim 17, wherein the wide area cellular
communication module formulates a message to cancel the previously communicated call
forwarding message to be sent to the remote wide area cellular network.